UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,848	01/02/2001	Jeong-hoon Park	Q62028	9288

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EXAMINER
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ART UNIT	PAPER NUMBER
2619	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		09/751,848	PARK ET AL.
		Examiner	Art Unit
		Andrew C. Lee	2619

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 June 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,5-33 and 36-59</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1,2,5-33 and 36-59</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☒ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)   Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)   Paper No(s)/Mail. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 1 - 2, 5 - 33, 36 - 59 are pending.

Claims 3 – 4, 34 – 35 had been canceled.

Based upon the amendment filed on 6/11/2008:

Claims 32, 33 rejection under 35 U.S.C. §112 first paragraph has been

withdrawn.

Claim 1 rejection under 35 U.S.C. § 112 first and second paragraphs has been

withdrawn.

Claims 32, 33, 36 – 59 rejection under 35 U.S.C. §101 has been withdrawn.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 2, 5 – 33, 36 – 59 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ludwig (US 6,697,352 B1) and Tomlins (US 6618383 B1) in view of

Zhu (US 6,154,780).

Regarding Claims 1, 2, 32, 33, Ludwig discloses of a method, a computer-readable recording medium having embodied thereon a computer program for performing a method (Fig. 8, col. 11, lines 22- 40) of transmitting a bit stream in a communication network (recited "generating data packets (as a bit stream) to be sent out having a first data structure determined by a first predetermined protocol" correlates to a method of transmitting a bit stream in a communication network; column 5, lines 26 – 36), the method comprising: (b) adding a header from each communication protocol layer to a payload while transmitting the bit stream coded in the step of to each communication protocol layer (recited "passing data through the layers" correlates to adding a header from each communication protocol layer to a payload; Fig 5, column 2, lines 10 – 33, column 17, lines 4 – 15); and, wherein in operation (c), a bit stream, to which header information has been added by undergoing each communication protocol layer (recited "passing data through the layers" correlates to header information has been added by undergoing each communication protocol layer; Fig 5, column 2, lines 10 – 33, column 17, lines 4 – 15) is transmitted in an unacknowledged mode protocol (recited "no unacknowledged numbered mode packets is allowed to be outstanding" correlates to a bit stream is transmitted in an unacknowledged mode protocol; column 15, lines 50 – 56), and only the header information in the bit stream is transmitted in an acknowledged mode protocol (recited "by means of acknowledgement messages" correlates to header information in the bit stream is transmitted in an acknowledged mode protocol; column 4, lines 13 – 22, Fig. 5, column 14, lines 66 – 67).

Ludwig does not disclose transmitting, from the first terminal to the second terminal, the header separately from the bit stream and only the header information in the bit stream is separately transmitted.

Tomlins disclose transmitting, from the first terminal to the second terminal, the header separately from the bit stream and only the header information in the bit stream is separately transmitted ("transmitting said payload and control information in parallel over separate serial lines" interpreted as transmitting, from the first terminal to the second terminal, the header separately from the bit stream and only the header information in the bit stream is separately transmitted; col. 2, lines 51 – 62, Fig. 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ludwig to include the features of transmitting, from the first terminal to the second terminal, the header separately from the bit stream and only the header information in the bit stream is separately transmitted as taught by Tomlins in order to provide an interface arranged to convey variable length voice and data information packets between processing devices in an asynchronous adaptation arrangement as suggested by Tomlins (see col. 3, lines 3 – 9).

Both Ludwig and Tomlins do not disclose explicitly (a) coding source data into the bit stream using a predetermined type of coding.

Zhu discloses the limitation of (a) coding source data into the bit stream using a predetermined type of coding (column 1, lines 33-34 — using H.263 representing a picture in an encoded video bitstream). Therefore, it would have been obvious to

modify both Ludwig and Tomlins to include coding source data into the bit stream using a predetermined type of coding as that taught by Zhu in order to create a flexible bitstream that may be efficiently packetized for a variety of transport protocols (as suggested by Zhu, see col. 3, lines 26 – 27).

Regarding claims 5, 6, 36, 37, Ludwig discloses when the number of times of re-transmission of a bit stream transmitted in an acknowledged mode protocol is equal to or less than a predetermined number of times, the bit stream, which has been transmitted in an unacknowledged mode protocol, is transmitted in an acknowledged mode protocol (recited "moving up to next protocol layer for a predetermined number of times, where the exceeding of said predetermined numbers of times leads to a default mode" as the number of times of re-transmission of a bit stream transmitted in an acknowledged mode protocol is equal to or less than a predetermined number of times; column 12, lines 41 – 50).

Regarding claims 7, 8, 9, 38, 39, 40, Ludwig discloses the header information in the bit stream be simultaneously transmitted in an acknowledged mode protocol with the bit stream (col. 14, lines 66-67). He also teaches that the header information in the bit stream is simultaneously transmitted in an acknowledged mode protocol with the payload (col. 15, lines 6-12). And the header information in the bit stream is simultaneously transmitted in the unacknowledged mode protocol with the bit stream (col. 14, lines 62-64).

Regarding claims 10, 41, Ludwig discloses that as a transmission error occurs, the bit stream, to which headers have been added by undergoing each communication protocol layer, is re-transmitted in an acknowledged or unacknowledged mode protocol (recited "protocol provides a numbered reliability mode and an unnumbered reliability mode" as each communication protocol layer, is re-transmitted in an acknowledged or unacknowledged mode protocol; col.11, lines 48-57).

Regarding Claims 11,12, 13, 14, 15, 16, 42, 43, 44, 45, 46, 47, Ludwig teaches the acknowledged mode protocol being a transmission control protocol (TCP), and the unacknowledged mode protocol being a user datagram protocol (UDP) (recited "by means of acknowledgement messages" as header information in the bit stream is transmitted in an acknowledged mode protocol; column 4, lines 13 – 22, Fig. 5, col. 14, lines 66 – 67, Column 6, lines 24-26; lines 35-37; col. 11, lines 48-57, Fig 9a and 9b).

Regarding Claims 17, 18, 19, 20, 21, 22, 23, 24 and 48, 49, 50, 51, 52, 53, 54, 55, Ludwig discloses the limitations of the acknowledged mode retransmitting Internet Protocol (IP) or Radio Link Protocol (RLP) packets (recited "acknowledgment packages" as acknowledged mode retransmitting; Col. 11, lines 50-57; recited "RLP packets of the numbered mode that are to be retransmitted" as Radio Link Protocol (RLP); col. 13, lines 60-63).

Regarding Claims 25, 26, 56, 57 Ludwig discloses the limitations of the headers are a payload header, a real time protocol (RTP) header, a user datagram protocol

(UDP) or transmission control protocol (TCP) header, an Internet protocol (IP) header, a

radio link protocol (RLP) header, and a layer 2 (L2) header, which are added after a bit

stream is passed through each layer (col. 6, lines 15-26, Fig.5 and Fig.6)

Regarding claims 27, 28 and 58, 59, Ludwig discloses the payload includes

multimedia data (recited "real-time data streams" as payload includes multimedia data;

column 6, lines 60-65; col. 17, lines 18-19).

Regarding Claim 29, Ludwig discloses adding the header of each communication

protocol layer to a payload while transmitting the bit stream encoded by the encoder to

each communication protocol layer (recited "passing data through the layers" as adding

the header of each communication protocol layer to a payload; Fig. 5, col. 2, lines 10 –

32); and a packet processing unit for transmitting the bit stream processed by the

protocol processing unit in an unacknowledged mode protocol (col. 6, lines 25 – 26;

lines 34 – 37) and transmitting the header information in an unacknowledged or

acknowledged mode protocol (Fig 5, col. 6, lines 26 – 27; col. 12, lines 33 – 34).

Both Ludwig and Tomlins do not disclose an encoder for encoding source data

into a bit stream.

Zhu teaches an encoder for encoding source data into a bit stream (recited " an

encoder/decoder (codec) as an encoder for encoding source data; col. 6, lines 10-14,

Fig 5; lines 5-9). Therefore, it would have been obvious to modify Both Ludwig and

Tomlins to include an encoder for encoding source data into a bit stream such as that

taught by Zhu in order to create a flexible bitstream that may be efficiently packetized

for a variety of transport protocols as suggested by Zhu (see col. 3, lines 26 – 27).

Regarding Claims 30 and 31, Ludwig disclose the system for relaying and

receiving a bit stream in a communication network (Fig 6), the system comprising an

extractor for separately extracting payloads and header information, which corresponds

to the header of each layer (Fig. 8; col. 9, lines 61 – 65), while transmitting a bit stream

received in a separate transmission protocol in the communication network to each

layer (col. 10, lines 33 – 36); an error determination processing unit for determining

whether the header information extracted by the extractor has error (col. 10, lines 20-

27, col. 16, lines 24 – 34); a bit stream re-organizing unit for re-organizing a bit stream

using the header information extracted by the extractor; and a decoder for decoding a

bit stream re-organized by the bit stream re-organizing unit (col. 14, lines 46-51). He

also teaches the system having the error determination processing unit also requests

re-transmission if it is determined that the header information has error (col. 13, lines 2-

7), an extractor for separately extracting payloads and header information, which

corresponds to the header of each layer (col. 9, lines 61-65), while transmitting a bit

stream received in a separate transmission protocol in the communication network to

each layer (col. 10, lines 33-36); wherein only the header information in the bit stream

is transmitted in an acknowledged mode protocol (recited "by means of

acknowledgement messages" correlates to header information in the bit stream is

transmitted in an acknowledged mode protocol; col. 4, lines 13 – 22, Fig. 5, col. 14,

lines 66 – 67).

However, Ludwig et al. do not disclose receiving a bit stream and a header information received in an acknowledged or unacknowledged mode protocol in the communication network to each layer.

Tomlins teaches receiving a bit stream and a header information received in an acknowledged or unacknowledged mode protocol in the communication network to each layer ("can transmit the protocol header and data as separate blocks" correlates to receiving a bit stream and a header information received in an acknowledged or unacknowledged mode protocol in the communication network to each layer; Fig. 19, col. 13, lines 50 – 67, col. 14, lines 1 – 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ludwig to include receiving a bit stream and a header information received in an acknowledged or unacknowledged mode protocol in the communication network to each layer as taught by Tomlins in order to provide a control system for the peripheral component interconnect bus as suggested by Tomlins (see column 1, lines 9 – 11).

Response to Arguments

4.   Applicant's arguments filed on 6/11/2008 with respect to claims 1 - 2, 5 - 33, 36 - 59 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1, 2, 5 – 28, 32, 33, 36 – 59, Applicant argues that Sutoh can be removed as a reference by perfecting a claim to foreign priority. The above-identified application claims priority under 35 U.S.C. § 119 from Korean Patent Application No.

10-2005-0020780, which has a priority date of February 26, 2000. Furthermore, the

filing date of Sutoh, May 25, 2000, is after the priority date of the Korean Patent

Application from which the instant application claims priority. Therefore, Sutoh may be

removed as a prior art reference by perfecting the claim to foreign priority by filing a

verified translation of the foreign priority document.

Examiner respectfully agrees. Reference Sutoh was hence removed for claims 1 - 2, 5 -

33, 36 – 59 rejections under 35 U.S.C. 103(a). A new reference Tomlins US 6618383

B1 will be recited for further examination purpose.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Le (US 6466585 B1.

- Jonsson et al. (US 6700888 B1).

- Le (US 6680955 B1).

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-

3131. The examiner can normally be reached on Monday through Friday from 8:30am -

5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2619
<7/04/2008>

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2619